



READING 10C Explain how different organizational patterns develop the main idea and the author's viewpoint. **12B** Understand how to glean and use information in documents.

Spider Webs

Online Science Article

Background

This **science article** explains how to identify different kinds of spiders by their webs. Examples include the common orb spider, whose web is shaped like spirals on lines, and the less well-known sheetweb spider, whose web is made of sheets of silk.

Skill Focus: Organizational Patterns—Classification

Expository text is informational text written to explain, define, persuade, or inform. Newspaper, magazine, and Web site articles are examples of expository texts. Expository text is built on text features and organizational patterns. **Text features** are the design elements: headings, layout, graphics, and captions. **Organizational patterns** are patterns writers use to organize the information they write. Comparison-and-contrast, cause-and-effect, and proposition-and-support are examples of organizational patterns. Writers choose the best organizational pattern for developing their main ideas and presenting their viewpoint—how the writer feels about the subject matter. Knowing the organizational pattern of an expository text can help you understand the information more easily.

Classification is an organizational pattern you'll often find in scientific writing. In classification, the writer organizes the text by sorting related information into categories. As you read "Spider Webs," make an outline of the article's structure so that you can understand the organizational pattern of classification. Start by writing what the article is about (its main idea), and then list the parts into which the article is divided.

Main Idea of Article
1. Subheading
A. Detail
B. Detail
2. Subheading
A. Detail
B. Detail
3. Subheading
A. Detail
B. Detail

SET A PURPOSE FOR READING

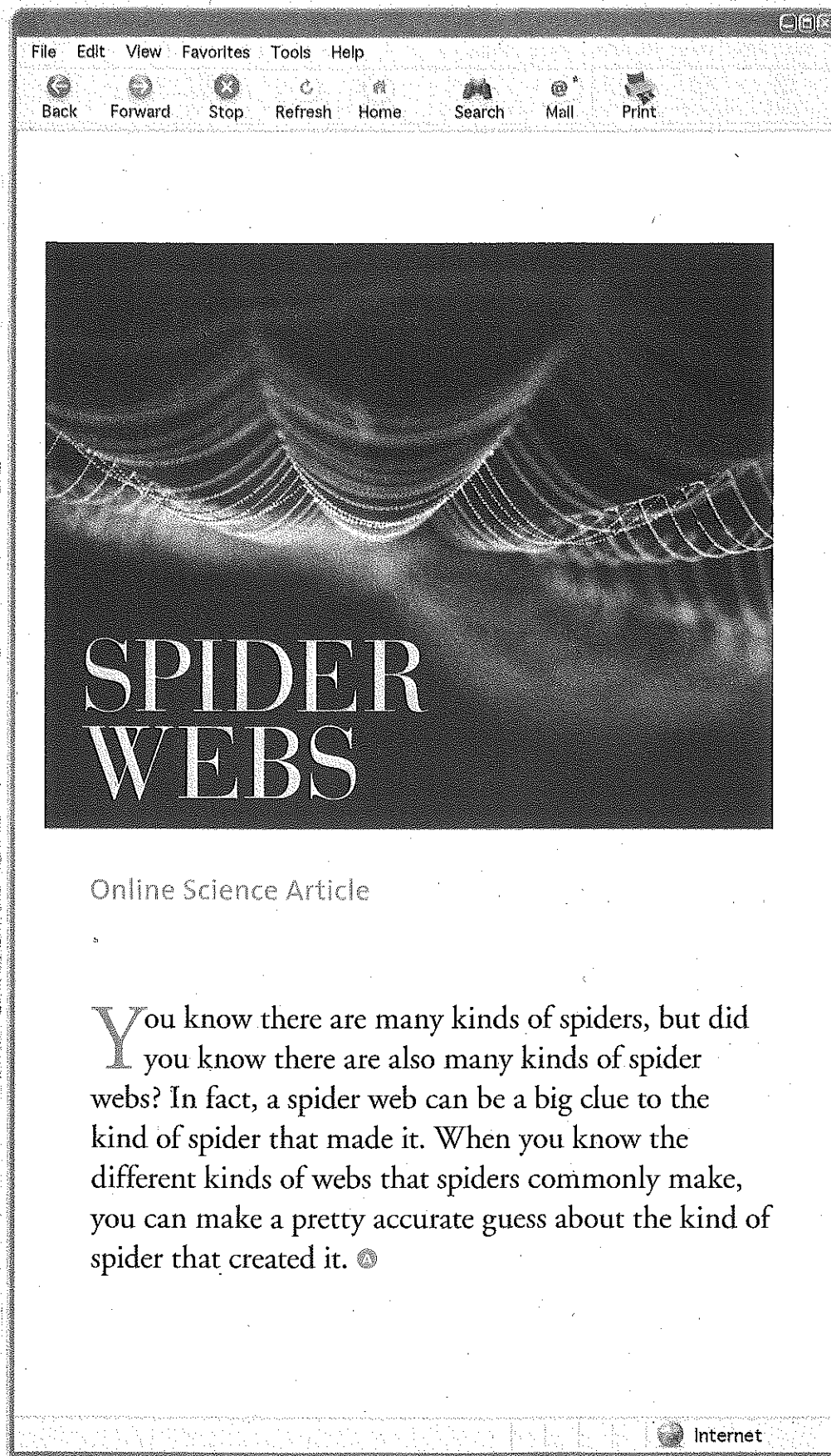
Read to find out about spiders and spider webs.

FOCUS ON FORM

A **science article** is a short piece of expository writing on a scientific subject. The author's purpose for writing a science article is usually to inform or to explain.

CLASSIFICATION

Reread lines 1–7. How does the organizational pattern of classification support the writer's purpose?



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SPIDER WEBS

Online Science Article

You know there are many kinds of spiders, but did you know there are also many kinds of spider webs? In fact, a spider web can be a big clue to the kind of spider that made it. When you know the different kinds of webs that spiders commonly make, you can make a pretty accurate guess about the kind of spider that created it. ①

Internet

PAUSE & REFLECT

Why do you think the writer begins with the kind of spider web readers are most likely to be familiar with?

B CLASSIFICATION

Why does it help to have the names of the spiders, such as "Triangle Spiders," boldfaced?

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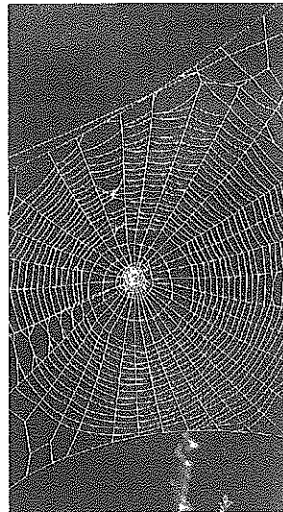
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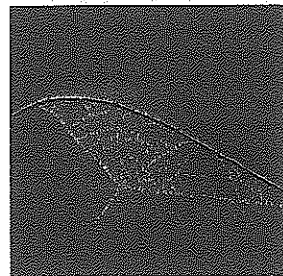
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► The kind of web that you are probably most familiar with is made by **ORB SPIDERS** (*Araneidae* family). Their webs are shaped like spirals on lines and are often very beautiful. To maintain that beauty, orb spiders have to repair their webs at least once every day. As the web loses its stickiness, the spider will eat it as it spins new threads. **PAUSE & REFLECT**



► **TRIANGLE SPIDERS** (*Uloboridae* family) make triangular webs. These webs resemble a slice of the webs made by orb spiders. **B**



► **FUNNEL SPIDERS** (*Agelenidae* family) make webs that might look like a bird's nest made of silk. The spiders make sheets of silk and shape them into funnels. The funnels have one

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30 big opening to catch prey. They also have one small opening in the back in case the spider needs to escape. These webs are not actually sticky. The spiders that make them are just better at moving around in the smooth funnel shape than their prey.

Sometimes, funnel spider webs aren't cupped. Instead, spiders

40 may make flat sheets with a small funnel-shaped retreat off to one side. ●

► **COBWEB SPIDERS** (*Theridiidae* family) make small, random messes of silk string that are attached to their surroundings by long strings. Cobweb spiders are also called comb-footed spiders.



Internet

● CLASSIFICATION

Complete the outline below with details about triangle spiders and funnel spiders.

II. Triangle Spiders

A. _____

B. _____

III. Funnel Spiders

A. _____

B. _____

Ⓢ CLASSIFICATION

Reread lines 43–58. Explain the comparison the writer makes between the meshweb spiders and the cobweb spiders. Why might such comparisons be helpful in a text that uses the classification organizational pattern?

Ⓢ SCIENCE ARTICLE

How do the photographs on this page help you understand what the author describes? In addition to photographs, what other kinds of visuals could the writer have included? How might they have helped you?

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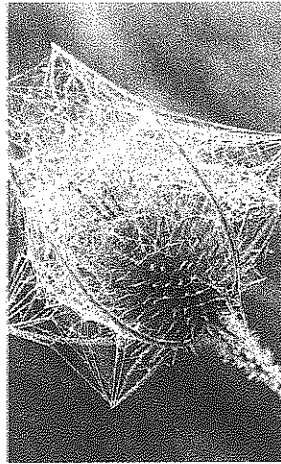
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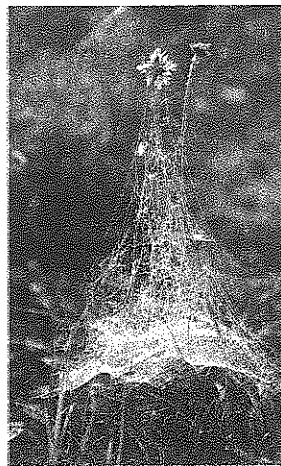


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► MESHWEB SPIDERS

50 (*Dictynidae* family) make webs that are similar to those of cobweb spiders but have a little more structure. The spiders are usually found in small, messy webs at the tips of vegetation, especially in grassy fields. They can also be found under stones and dead leaves. Ⓢ



► SHEETWEB SPIDERS

60 (*Linyphiidae* family) make many kinds of webs that are formed out of sheets of silk. The sheets are a maze of threads, and don't have many large gaps.

There are several kinds of sheetweb spiders. *Platform spiders* make thickly interwoven sheets of silk. *Filmy dome spiders* make dome-shaped sheets that are secured by a network of silk strings. *Bowl and doily*¹ spiders


1. **doily** (doi'lē): a small mat, often round and made of lace, that is used as a protective or decorative cover on furniture.

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make unusual webs. The tops look like bowls that are secured by strings to something above them. The bowl appears to be sitting on a doily that is the second part of the web and is attached horizontally. These kinds of webs make very effective booby-traps

80 for unsuspecting insects. ⑤



► Spider webs are a sign that spiders have been nearby, but they aren't the only sign. Spiders also spin webs to protect their eggs and developing young. These EGG CASES look like eggs but actually contain hundreds of tiny spider eggs.

Some spiders don't make webs

90 at all. However, these spiders do use silk to make a little hiding place for themselves, especially females with eggs. ⑥

Internet

⑤ CLASSIFICATION

Underline the different kinds of sheetweb spiders the author describes (lines 65–80). What are the similarities and differences between them? Why do you think the author presents the spiders in this particular order?

⑥ CLASSIFICATION

How do you think the author feels about the topic? How does the classification pattern of organization support the author's viewpoint about the topic?

Read and Respond NONFICTION

Article/Author: _____

Main Idea: _____

Three Important Facts or Statistics:

1. _____

2. _____

3. _____

One Opinion From the Article:

My Opinion About the Article:

Supporting Detail 1: _____

Supporting Detail 2: _____

Supporting Detail 3: _____

Author's Purpose

- ☐ Persuade ☐ Inform ☐ Entertain
☐ Explain ☐ Describe

Text Structure

- ☐ Description ☐ Problem & Solution
☐ Order & Sequence ☐ Cause & Effect
☐ Compare & Contrast

Academic Vocabulary in Speaking

circumstance contribute element significant tradition

TURN AND TALK With a partner, discuss how the various **elements** of a scientific article **contribute** to understanding the information. Before your discussion, take notes on how the text features such as the photographs and subheadings helped clarify the information in the text. Use at least two Academic Vocabulary words. Definitions of these words are on page 231.



READING 10C Explain how different organizational patterns develop the main idea and the author's viewpoint.

Texas Assessment Practice

DIRECTIONS Use "Spider Webs" to answer questions 1–4.

- 1 What are the three kinds of sheetweb spiders mentioned in the article?
 - (A) filmy dome, triangle, orb
 - (B) sheetweb, bowl and doily, platform
 - (C) orb, funnel, filmy dome
 - (D) platform, filmy dome, bowl and doily
- 2 From the text details, you can assume the writer—
 - (F) includes many opinions about spiders
 - (G) cares only about certain types of spiders
 - (H) knows very little about spiders
 - (J) is very interested in spiders
- 3 The boldfaced words in the article —
 - (A) show the reader where information about a topic ends.
 - (B) tell the reader that a new topic is starting.
 - (C) give the reader unnecessary information.
 - (D) answer questions stated in the text.
- 4 One inference you can make from the information in this article is that spiders are named for the —
 - (F) areas where they live
 - (G) kinds of webs they make
 - (H) markings on their bodies
 - (J) colors of their webs